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Learning Style: Virtual Classroom

Technology: Oracle

Difficulty: Beginner

Course Duration: 2 Days

Next Course Date: **March 4, 2026**

Oracle Database Administration Fundamentals (TTOR20520)



About This Course:

This intensive boot camp prepares learners to perform entry-level Oracle DBA tasks. The course covers Oracle architecture, instance and storage management,

user and privilege administration, undo, data movement, and Oracle networking tools. Labs reinforce skills with real Oracle environments.

Course Objectives:

- Explain Oracle database architecture and processes
- Start, stop, and monitor Oracle instances
- Manage users, roles, privileges, and security profiles
- Create and manage tablespaces, datafiles, and undo
- Use Oracle diagnostic tools and performance views
- Move data with Data Pump and SQL*Loader
- Configure Oracle Net and use DBA tools (DBCA, EM, SQL*Plus)

Audience:

- Aspiring DBAs
- IT professionals supporting Oracle environments

Prerequisites:

- Basic relational database knowledge
- Familiarity with SQL and OS commands

Course Outline:

1) Oracle Architecture and Storage Foundations

- Oracle logical and physical structures
- Instance vs. database
- Memory (SGA, PGA) and background processes
- Data blocks, extents, segments, and tablespaces

Lab

- Explore an Oracle instance and identify memory structures
- Query data dictionary views to examine storage structures

2) Instance Management and Diagnostics

- Starting and stopping an instance (STARTUP, SHUTDOWN)
- Alert log, trace files, and Automatic Diagnostic Repository (ADR)
- Data dictionary and dynamic performance views

Lab

- Start and stop the database in different modes
- Inspect alert logs and trace files
- Use ADRCI for diagnostics
- Query V\$ views to monitor performance

3) User, Role, and Privilege Administration

- Creating and managing users
- Roles and system/object privileges
- Resource limits and profiles
- Security best practices with least privilege

Lab

- Create new users and assign quotas
- Define roles and grant/revoke privileges
- Configure profiles with resource limits

4) Tablespace, Datafile, and Undo Management

- Creating and altering tablespaces

- Managing datafiles (add, resize, move, rename)
- Undo segments and undo retention
- Temporary undo

Lab

- Create permanent and temporary tablespaces
- Resize and rename datafiles online
- Configure undo tablespace and retention policies

5) Data Movement and Loading

- Oracle Data Pump (expdp, impdp)
- SQL*Loader for flat file loading
- External tables for fast access to external data

Lab

- Export and import schemas with Data Pump
- Load data with SQL*Loader control files
- Query external tables and compare performance

6) Oracle Tools and Net Services

- Using DBCA to create/manage databases
- Enterprise Manager Express/Cloud Control basics
- SQL*Plus and SQL Developer
- Oracle Net: listener configuration, naming methods, shared vs. dedicated servers

Lab

- Configure and test a listener with Oracle Net Manager

- Connect to the database with SQL*Plus and SQL Developer
- Create a new database using DBCA
- Navigate EM Express to monitor instance activity